



# Submission to the NSW Parliamentary Inquiry into the Impacts of Data Centres

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## *Greater Western Sydney Advocacy Network (GWSAN)*

### Introduction

The Greater Western Sydney Advocacy Network (GWSAN) welcomes the opportunity to contribute to the NSW Parliamentary Inquiry into the impacts of data centres.

GWSAN is a community-led regional organisation focused on spatial justice, equitable infrastructure investment, and long-term economic and social wellbeing across Greater Western Sydney.

Greater Western Sydney is home to more than 2.7 million people and is one of Australia's fastest-growing regions. As digital infrastructure expands, particularly data centres, planning decisions must ensure their environmental and infrastructure impacts are carefully managed in communities already facing heat, infrastructure and affordability pressures.

This inquiry provides an important opportunity to ensure that the expansion of digital infrastructure occurs in a way that is transparent, equitable and aligned with long-term climate resilience.

### Why Data Centres Matter to Western Sydney

Western Sydney has become a preferred location for large-scale data centres due to the availability of industrial land, proximity to electricity infrastructure, and transport connectivity.

Major global technology companies and Australian data centre providers are increasingly locating facilities in industrial precincts across the region.

However, data centres are highly energy-intensive facilities that require continuous electricity supply and extensive cooling infrastructure. As a result, their rapid expansion raises several important questions for communities in Western Sydney, including:

- the impact on electricity demand and energy infrastructure
- water usage associated with cooling systems
- cumulative heat impacts in already heat-vulnerable areas
- long-term infrastructure planning to support clustered development.

These impacts must be considered in the context of Western Sydney's unique environmental and demographic conditions.

## Extreme Heat and Climate Vulnerability in Western Sydney

Western Sydney already experiences significantly higher temperatures than coastal parts of metropolitan Sydney.

Suburbs across Penrith, Blacktown and Liverpool regularly record temperatures several degrees higher than those in eastern Sydney during summer heatwaves.

Extreme heat has serious consequences for community wellbeing, including:

- increased hospital admissions during heatwaves
- higher household electricity costs due to cooling demand
- increased health risks for vulnerable populations including children, older residents and people with chronic illness.

Western Sydney communities are therefore particularly sensitive to any infrastructure that may increase local heat loads or place additional pressure on electricity systems during extreme weather events.

Ensuring that digital infrastructure is compatible with climate resilience is an important planning challenge for the region.

## Infrastructure Pressure: Energy, Water and Cooling

Data centres require continuous electricity supply to power servers and cooling systems.

Large facilities can consume as much electricity as tens of thousands of households.

Cooling systems may also require significant water resources depending on the technology used.

These demands raise important infrastructure questions, including:

- how electricity networks will accommodate increasing data centre demand
- whether energy demand could coincide with peak residential cooling demand during heatwaves
- what cooling technologies are being used and their associated water consumption
- whether sufficient infrastructure planning has been undertaken to support clustered facilities.

Transparent planning and public information are essential to ensure communities understand the infrastructure implications of these developments.

## Cumulative Impacts of Data Centre Clustering

One of the key concerns raised by GWSAN is the concentration of multiple data centres within industrial precincts across Western Sydney.

Planning processes typically assess the impacts of each development individually. However, the combined effects of multiple facilities may be substantial.

- Potential cumulative impacts include:
- large increases in regional electricity demand
- additional pressure on transmission infrastructure
- concentrated industrial heat emissions
- increased water demand in areas already experiencing climate stress.

Without regional analysis, it is difficult for communities or policymakers to fully understand the long-term infrastructure and environmental implications of these developments.

## Regional Equity Considerations

Western Sydney already hosts a large share of metropolitan Sydney's major infrastructure, including freight logistics hubs, waste management facilities, industrial precincts and transport corridors.

While these investments support economic growth, they also raise broader questions about how infrastructure impacts are distributed across the metropolitan region.

As digital infrastructure expands, it is important to ensure that Western Sydney does not become the default location for energy-intensive facilities without appropriate planning safeguards or community benefits.

Ensuring equitable planning outcomes is essential for maintaining community trust in development and infrastructure decisions.

## Experiences and Community Concerns

Through community engagement and advocacy work, GWSAN has heard growing concern about the pace of large infrastructure approvals in Western Sydney.

Residents frequently raise questions about:

- the energy demands of large data centres
- potential impacts on electricity prices
- water consumption during periods of drought
- the long-term environmental footprint of these facilities.

Community members often report that they feel insufficiently informed about the scale and impacts of data centre developments in their local areas.

Improving transparency and public engagement will be important to ensure that communities remain informed participants in infrastructure planning.

## Response to the Inquiry Terms of Reference

### Energy demand and infrastructure capacity

The inquiry should examine the cumulative electricity demand of approved and proposed data centres across Western Sydney and how this demand interacts with peak electricity usage during extreme heat events.

### Environmental and climate impacts

Consideration should be given to the potential contribution of clustered facilities to local heat conditions and the water demands associated with cooling systems.

### Strategic planning

The inquiry should assess whether there is a coordinated statewide strategy guiding the location of data centres, or whether decisions are currently being made primarily on a project-by-project basis.

### Community impacts

The inquiry should consider how the benefits and impacts of digital infrastructure are distributed across communities hosting these facilities.

## Key Questions for the Inquiry

The Greater Western Sydney Advocacy Network encourages the Committee to consider the following questions when examining the impacts of data centre development in NSW.

### 1. What is the cumulative electricity demand from approved and proposed data centres in Western Sydney?

Individual planning assessments often identify electricity requirements for specific projects, but the combined demand across multiple facilities is rarely publicly reported. Understanding cumulative demand is essential for planning electricity infrastructure and maintaining system reliability during extreme heat events.

### 2. How will data centre electricity demand interact with peak residential demand during heatwaves?

Western Sydney households already experience high electricity demand during extreme heat due to cooling requirements. The inquiry should examine whether large-scale data centre operations could place additional pressure on electricity networks during these peak periods.

### 3. What cooling technologies are being used and what are their associated water demands?

Cooling systems vary significantly in their energy efficiency and water use. The inquiry should consider whether sufficient information is available regarding water consumption and whether alternative technologies could reduce resource demand.

#### **4. Has modelling been undertaken to assess potential local heat impacts?**

Given Western Sydney's vulnerability to extreme heat, the inquiry should consider whether modelling has been undertaken to assess how clusters of large facilities may interact with existing urban heat conditions.

#### **5. Is there a coordinated statewide strategy guiding the location of data centres?**

The rapid growth of digital infrastructure raises the question of whether site selection is guided by a strategic framework or primarily determined through project-by-project approvals.

A strategic framework could help ensure that infrastructure development aligns with electricity capacity, climate resilience and regional planning priorities.

#### **6. How are host communities benefiting from digital infrastructure investment?**

Data centres support the broader digital economy but are often located in specific communities. The inquiry should consider whether local communities receive direct benefits such as infrastructure upgrades, climate resilience investment or other forms of community benefit.

### **Recommendations**

GWSAN recommends that the NSW Government consider the following measures:

#### **1. Develop a statewide data centre strategy**

A strategic framework should guide the location of data centres across NSW, taking into account infrastructure capacity, climate vulnerability and regional equity.

#### **2. Introduce cumulative impact assessments**

Where multiple data centres are located within the same region, planning processes should evaluate their combined impacts on electricity networks, water resources and local environmental conditions.

#### **3. Require heat resilience assessments**

Planning approvals should require modelling of potential heat impacts and demonstrate how facilities will minimise environmental impacts in heat-vulnerable regions.

#### **4. Improve infrastructure transparency**

Public reporting should include information on projected electricity demand, water usage and cooling technologies associated with major facilities.

#### **5. Support host communities**

Where major digital infrastructure is located in specific communities, governments should ensure local investment in climate resilience measures such as urban cooling and tree canopy expansion.

## Conclusion

Data centres are an essential component of modern economic infrastructure and will continue to play a vital role in Australia's digital economy.

However, their rapid expansion must be carefully managed to ensure that infrastructure development aligns with long-term environmental resilience, regional equity and community wellbeing.

Western Sydney is already facing significant climate and infrastructure pressures. Strategic planning and transparency are essential to ensure that the growth of digital infrastructure strengthens, rather than undermines, the resilience of the communities that host it.

GWSAN appreciates the opportunity to contribute to this inquiry and would welcome further engagement with the Committee.

Warm Regards,  
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